

## REMARKS

Claims 41-124 are hereby cancelled without prejudice.

The Examiner rejected claims 1-4, 6-9, 11-14, 16-19, 21-24, 26-29, 31-34 and 36-39 under 35 U. S. C. § 103. The Examiner relied upon Nickolls U. S. Patent 5,251,626 (hereinafter Nickolls) to support this rejection. The Examiner concedes that Nickolls does not teach “identifying ‘ingress noise’, which is to say externally generated noise in communication networks.” The Examiner concludes, however, that “[b]ecause the two problems are mathematically analogous, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Nickolls to the identification of ingress noise.”

First, Nickolls is non-analogous art to the invention of the present claims. The test for determining whether prior art is analogous for the purpose of determining whether the art can appropriately serve as a basis for a 35 U.S.C. §103 rejection is set forth in, for example, In re Clay, 23 USPQ 2d 1058 (Fed. Cir. 1992) and In re Oetiker, 24 USPQ 2d 1443 (Fed. Cir. 1992). In Clay, for example, the Court observed that

Two criteria have evolved for determining whether prior art is analogous: (1) whether the art is from the same field of endeavor, regardless of the problem addressed, and (2) if the reference is not within the field of the inventor’s endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved (citing In re Deminski, 796 F.2d 436, 442, 230 USPQ 313, 315 (Fed. Cir. 1986); In re Wood, 599 F.2d 1032, 1036, 202 USPQ 171, 174 (CCPA 1979)). Clay at 1060.

In Clay, the issue was whether a reference (Sydansk) which disclosed a process using a gel for reducing the permeability of hydrocarbon-bearing formations (useful in the recovery of oil from an oil field, for example) was analogous art to Clay’s claimed process for using a similar gel to fill a dead volume in the bottom of a liquid hydrocarbon storage tank. Clay, supra. The Court observed that

Sydansk cannot be considered to be within Clay’s field of endeavor merely because both relate to the petroleum industry. Sydansk teaches the use of a gel in unconfined and irregular volumes within generally underground natural oil-bearing formations to channel flow in a desired direction; Clay teaches the introduction of gel to the confined dead volume of a man-made storage tank. The Sydansk process operates in extreme conditions, with petroleum formation temperatures as high as 115°C and at significant well bore pressures; Clay’s process apparently operates at ambient temperature and atmospheric pressure. Clay’s field of endeavor is the storage of refined

liquid hydrocarbons. The field of endeavor of Sydansk's invention, on the other hand, is the extraction of crude petroleum. The Board clearly erred in considering Sydansk to be within the same field of endeavor as Clay's. Clay, supra., emphasis the Court's.

The Court noted that

Even though the art disclosed in Sydansk is not within Clay's field of endeavor, the reference may still properly be combined with Hetherington [another reference] if it is reasonably pertinent to the problem Clay attempts to solve. In re Wood, 599 F.2d at 1036, 202 USPQ at 174. A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem. Clay at 1060-61.

The Court analyzed Sydansk's pertinence to the problem Clay was trying to solve, observing that

Sydansk's gel treatment of underground formations functions to fill anomalies so as to improve flow profiles and sweep efficiencies of injection and production fluids through a formation, while Clay's gel functions to displace liquid product from the dead volume of a storage tank. Clay at 1061, footnote omitted,

and concluded that

A person having ordinary skill in the art would not reasonably have expected to solve the problem of dead volume in tanks for storing refined petroleum by considering a reference dealing with plugging underground formation anomalies. The Board's finding to the contrary is clearly erroneous. Since Sydansk is non-analogous art, the rejection over Hetherington in view of Sydansk cannot be sustained. Clay, supra.

In In re Oetiker, supra., Oetiker's invention was an improvement in a hose clamp which was the subject of a prior patent ('004) to Oetiker. The improvement added another feature, a preassembly hook to the '004 patent clamp. The other reference (Lauro) the Examiner combined with the '004 patent teaching to support the 35 U.S.C. §103 rejection related to a plastic hook and eye fastener for garments. The Court noted that

The examiner explained further by stating that Appellant's device as disclosed could be utilized as part of a garment. The Board did not repeat or support the examiner's argument, or discuss its relevance. Indeed, the argument is not supportable. However, the Board held that the Lauro reference, although not within the appellant's specific field of endeavor is nonetheless analogous art because it relates to a hooking problem, as does

Oetiker's invention.

The Board apparently reasoned that all hooking problems are analogous. Oetiker at 1445.

The Court again observed that

In order to rely on a reference as a basis for rejection of the applicant's invention, the reference must either be in the field of the applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned. See In re Deminski, 796 F.2d 436, 442, 230 USPQ 313, 315 (Fed. Cir. 1986). Patent examination is necessarily conducted by hindsight, with complete knowledge of the applicant's invention, and the courts have recognized the subjective aspects of determining whether an inventor would reasonably be motivated to go to the field in which the examiner found the reference, in order to solve the problem confronting the inventor. We have reminded ourselves and the PTO that it is necessary to consider "the reality of the circumstances," In re Wood, 599 F.2d 1032, 1036, 202 USPQ 171, 174 (CCPA 1979) - in other words, common sense - in deciding in which fields a person of ordinary skill would reasonably be expected to look for a solution to the problem facing the inventor.

It has not been shown that a person of ordinary skill, seeking to solve a problem of fastening a hose clamp, would reasonably be expected or motivated to look to fasteners for garments. The combination of elements from non-analogous sources, in a manner that reconstructs the applicant's invention only with the benefit of hindsight, is insufficient to present a prima facie case of obviousness.

\* \* \*

We conclude that the references on which the Board relied were improperly combined. Accordingly, the Board erred in holding the claims unpatentable under section 103. The rejection of claims 1-4 and 16-21 is REVERSED. Oetiker at 1445-46.

Nickolls relates to medical devices which monitor the cardiac state of a patient by sensing the patient's intrinsic rhythm for the presence of arrhythmias and which deliver therapy in the form of electrical energy to cardiac tissue in an attempt to revert ventricular fibrillation (VF) and other detected arrhythmias and restore a normal sinus rhythm to the patient. Nickolls, col. 1, lines 11-17. More particularly, Nickolls is related to describes an apparatus and method for the detection and treatment of cardiac arrhythmias by the use of a neural network. Nickolls utilizes a neural network for arrhythmia recognition, diagnosis, and therapy control or a warning system to a patient. Nickolls's neural network is a parallel

processing system, and is said to have the capability of recognizing VF's and other forms of arrhythmias in real time accurately and with low power consumption. Nickolls's device is said to provide an enhanced complex therapy control and the ability to make diagnostic decisions using incomplete data. Nickolls's device is said to be applicable to all types of heart pacemaker sensing and therapy including bradycardia and rate responsive pacing. Nickolls, col. 1, lines 19-34. There is no mention in Nickolls of claim 1's specifically recited method for

“identifying a source of ingress into a network including storing frequency spectra of known sources of ingress, comparing the frequency spectrum of ingress to the frequency spectra of known sources of ingress, and determining from the comparison which of the frequency spectra of known sources of ingress is closest to the frequency spectrum of the ingress”

or claim 21's specifically recited

“memory for storing frequency spectra of known sources of ingress and a device for comparing the frequency spectrum of the ingress to frequency spectra of known sources of ingress and determining from the comparison which frequency spectrum of a known source of ingress is closest to the frequency spectrum of the ingress.”

A person of ordinary skill in the field of the present invention would not have looked to apparatus and methods for the detection and treatment of cardiac arrhythmias for aid in identifying sources of noise ingress into a network. As such, Nickolls is non-analogous art to the invention of the present claims.

Further, even assuming that Nickolls were analogous art to the present claims (and Applicant vigorously denies that this is so), Nickolls neither discloses nor suggests claim 1's specifically recited

“identifying a source of ingress into a network including storing frequency spectra of known sources of ingress, comparing the frequency spectrum of ingress to the frequency spectra of known sources of ingress, and determining from the comparison which of the frequency spectra of known sources of ingress is closest to the frequency spectrum of the ingress”

or claim 21's specifically recited

“memory for storing frequency spectra of known sources of ingress and a device for comparing the frequency spectrum of the ingress to frequency spectra of known sources of ingress and determining from the comparison which frequency spectrum of a known source of ingress is closest to the frequency spectrum of the ingress.”

The Examiner rejected claims 5, 10, 15, 20, 25, 30, 35 and 40 under 35 U. S. C. § 103. The Examiner relied upon the combination of Nickolls and Eberhart U. S. Patent 6,516,309 (hereinafter Eberhart) to support this rejection.

Eberhart teaches methods and apparatus for evolving neural networks. The weaknesses of Nickolls, the primary reference, have been extensively discussed above. Eberhart adds nothing to the teachings of Nickolls that would cure these weaknesses. Further, some motivation must be found in the prior art of record for the combination upon which the Examiner relies to support this rejection. However, no motivation is found where motivation must be to make out a *prima facie* case of 35 U.S.C. §103 obviousness. That is, no motivation is found in the prior art of record. Rather, the only source for the motivation to

“identify[ ] a source of ingress into a network including storing frequency spectra of known sources of ingress, comparing the frequency spectrum of ingress to the frequency spectra of known sources of ingress, and determining from the comparison which of the frequency spectra of known sources of ingress is closest to the frequency spectrum of the ingress”

or to provide

“memory for storing frequency spectra of known sources of ingress and a device for comparing the frequency spectrum of the ingress to frequency spectra of known sources of ingress and determining from the comparison which frequency spectrum of a known source of ingress is closest to the frequency spectrum of the ingress.”

of Applicant’s claims is Applicant’s claims themselves. Using the claims as the source for the motivation to construct the claimed apparatus and perform the claimed methods does not make out a *prima facie* case of 35 U.S.C. §103 obviousness. Quite the contrary, Applicant submits. It makes out a *prima facie* case of 35 U.S.C. §103 unobviousness. It is well-settled that

The invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time . . . That which may be made clear and thus ‘obvious’ to a court, with the invention fully diagrammed and aided . . . by [experts in the field], may have been a breakthrough of substantial dimension when first unveiled.

Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1138, 227 USPQ 543, 547-548 (Fed. Cir. 1985). Confer Uniroyal Inc. v. Rudkin-Wiley Corp., 5 USPQ 2d 1434, 1438.

The PTO has the burden under section 103 to establish a *prima facie* case of obviousness (citing In re Piasecki, 745 F.2d 1468,

1471-72, 223 USPQ 785, 787-88 (Fed. Cir. 1984)). It can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references (citing In re Lalu, 747 F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1984); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 297 n.24, 227 USPQ 657, 667 n.24 (Fed. Cir. 1985); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984)). This it has not done. The Board points to nothing in the cited references, either alone or in combination, suggesting or teaching Fine's invention." In re Fine, 5 USPQ 2d 1596, 1598-99 (Fed. Cir. 1988).

From its discussion of the prior art it appears to us that the court, guided by the defendants, treated each reference as teaching one or more of the specific components for use in the Feil system, although the Feil system did not then exist. Thus the court reconstructed the Feil system, using the blueprint of the Feil claims. As is well established, this is legal error (citing Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 774, 218 USPQ 781, 791 (Fed. Cir. 1983), *cert. denied*, 104 S.Ct. 1284, 224 USPQ 520 (1984)).

Interconnect Planning, *supra*. at 548.

More is required to make out a *prima facie* case of obviousness of a claim to

“identifying a source of ingress into a network including storing frequency spectra of known sources of ingress, comparing the frequency spectrum of ingress to the frequency spectra of known sources of ingress, and determining from the comparison which of the frequency spectra of known sources of ingress is closest to the frequency spectrum of the ingress”

under 35 U. S. C. § 103 than simply finding references to neural networks in the prior art.

More is required to make out a *prima facie* case of obviousness of a claim to

“memory for storing frequency spectra of known sources of ingress and a device for comparing the frequency spectrum of the ingress to frequency spectra of known sources of ingress and determining from the comparison which frequency spectrum of a known source of ingress is closest to the frequency spectrum of the ingress”

under 35 U. S. C. § 103 than simply finding references to neural networks in the prior art.

When patentability turns on the question of obviousness, the search for and analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness. See, e.g., McGinley v. Franklin Sports, Inc., 262 F.3d 1339, 1351-52,

60 USPQ2d 1001, 1008 (Fed. Cir. 2001) (“the central question is whether there is reason to combine [the] references,” a question of fact drawing on the Graham factors).

The factual inquiry whether to combine references must be thorough and searching.” Id. It must be based on objective evidence of record. This precedent has been reinforced in myriad decisions, and cannot be dispensed with. See, e.g., Brown & Williamson Tobacco Corp. v. Philip Morris Inc., 229 F.3d 1120, 1124-25, 56 USPQ2d 1456, 1459 (Fed. Cir. 2000) (“a showing of a suggestion, teaching, or motivation to combine the prior art references is an ‘essential component of an obviousness holding’”) (quoting C.R. Bard, Inc., v. M3 Systems, Inc., 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998)); In re Dembiczak, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) (“Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.”); In re Dance, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998) (there must be some motivation, suggestion, or teaching of the desirability of making the specific combination that was made by the applicant); In re Fine, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988) (“teachings of references can be combined only if there is some suggestion or incentive to do so.”) (emphasis in original) (quoting ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984)).

The need for specificity pervades this authority. See, e.g., In re Kotzab, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) (“particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed”); In re Rouffet, 149 F.3d 1350, 1359, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998) (“even when the level of skill in the art is high, the Board must identify specifically the principle, known to one of ordinary skill, that suggests the claimed combination. In other words, the Board must explain the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious.”); In re Fritch, 972 F.2d 1260, 1265, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992) (the examiner can satisfy the burden of showing obviousness of the combination “only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references”).

With respect to Lee’s application, neither the examiner nor the Board adequately supported the selection and combination of

the Nortrup and Thunderchopper references to render obvious that which Lee described. The examiner's conclusory statements that "the demonstration mode is just a programmable feature which can be used in many different device[s] for providing automatic introduction by adding the proper programming software" and that "another motivation would be that the automatic demonstration mode is user friendly and it functions as a tutorial" do not adequately address the issue of motivation to combine. This factual question of motivation is material to patentability, and could not be resolved on subjective belief and unknown authority. It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to "[use] that which the inventor taught against its teacher." W.L. Gore v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983). Thus the Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency's conclusion.

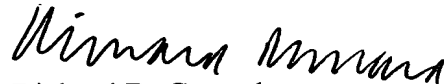
In re Lee, 61 U. S. P. Q. 2d 1430, 1433-1435, (Fed. Cir., 2002).

Applicant submits that the Nickolls/Eberhart combination does not meet the requirements recognized by In re Lee to make out a *prima facie* case of 35 U. S. C. § 103 obviousness. Accordingly, Applicant submits that the 35 U. S. C. § 103 rejection of claims 1-40 based upon the Nickolls/Eberhart combination is overcome.

Accordingly, Applicant submits that this application is now in condition for allowance. Such action is respectfully requested.

Please charge any fees which may be necessary to constitute this a timely response to the October 21, 2004 official action, or credit any overpayment, to Applicant's undersigned counsel's deposit account 10-0435 with reference to our file 6573-62441. A duplicate copy of this authorization is enclosed. Accordingly, Applicant submits that this application is in condition for favorable consideration, culminating in allowance. Such action is respectfully requested.

Respectfully submitted,



Richard D. Conard  
Attorney Reg. No. 27321  
Attorney for Applicant

RDC/kat  
Indianapolis, Indiana  
(317)231-7285

INDS02 RDC 701134